



Add: 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Shenzhen, Guangdong, P.R.C.
Tel: +86-755- 27521059 Fax: +86-755- 27521011 Http://www.sz-ctc.org.cn

Maximum RF Exposure Evaluation

FCC ID: 2ATXW-TVEB200

According to KDB447498 D01 General RF Exposure Guidance v06, Clause 4.3.1(a)

EUT Specification

Product Name:	TV-EARBUDS
Trade Mark:	/
Model/Type reference:	TV-EB200
Listed Model(s):	TV-EB200PRO, TV-EB200PRO PLUS
Frequency band (Operating)	☐ BT/EDR: 2.402GHz ~ 2.480GHz ☐ BLE: 2.402GHz ~ 2.480GHz ☐ WLAN: 2.412GHz ~ 2.462GHz ☒ Others: 2.403GHz ~ 2.478GHz
Device category	☐ Portable (<5mm separation) ☒ Mobile (>20cm separation) ☐ Fixed (>20cm separation) ☐ Others
Antenna diversity	☒ Single antenna ☐ Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity
Antenna gain (Max)	-0.68dBi
Evaluation applied	☒ RF Exposure Evaluation ☐ SAR Evaluation

Limit

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30



Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

P_d = Power density in mW/cm^2

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d the limit of MPE $1mW/cm^2$. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, We will know the distance where the MPE limit is reached.

Measurement Result

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
GFSK	2475	-0.68	5.6	5 ± 1	6	0.00065	1

$0.00065 < 1$, So the transmitter complies with the RF exposure requirements and the SAR is not required

Note

For a more detailed features description, please refer to the RF Test Report.

*****THE END*****